

Some New Genera and Species of Chalcidoid Hymenoptera of the Family Eulophidæ From Australia

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Family EULOPHIDÆ

Subfamily TETRASTICHINÆ, TETRASTICHINI

Neomphaloides new genus

Female—Head normal, nearly round from direct cephalic aspect, the antennæ inserted near its middle, distinctly above an imaginary line drawn between the ventral ends of the eyes, eleven-jointed-scape, pedicel, three narrow ring-joints, three funicle joints and a three-jointed club, the terminal joint ending in a spur. Funicle joints elongate, the proximal one nearly as long as the club; pedicel very long, subequal to the distal funicle joint. Fore wings ample, the marginal and submarginal veins long, the former about a fourth longer than the latter; postmarginal vein absent; stigma vein with a slender neck. Both wings normally ciliate, the marginal cilia short. Tarsi four-jointed, the tibial spurs single. Both mandibles tridentate. Parapsidal furrows complete. Scutellum with four longitudinal grooved lines, the lateral ones finer; metathoracic spiracle large, oval. Propodeum with two, short median carinæ, parallel but distad diverging suddenly and running along the distal margin of the segment. Abdomen sessile, longer than the head and thorax combined, produced ventrad near base, conic-ovate, produced distad into a moderately long stylus from beneath which slightly projects the ovipositor enclosed by its valves. Mesoscutum long, with a distinct median groove. Sculpture fine reticulation over the head, thorax and abdomen, not varying noticeably as regards density. Body metallic. Ocelli distant from the eyes. Genal sulcus distinct.

Male—Not known.

A genus unique for the tribe because of the three ring-joints of the antennæ, the longitudinal grooves on the thorax and the pro-

duced abdomen. Resembling *Tetrastichus* Haliday but the abdomen much longer.

Type—The following species.

1. *Neomphaloides cinctiventris* new species.

Female—Length 3.75 mm. General color dark metallic green, the propodeum brighter, the mesothorax with much bronze, the abdomen darker, above at base with a broad orange band which ventrad spreads further distad and involves the produced part of the venter; legs wholly light lemon yellow as are also the ventral half of the occiput and the face ventrad of the insertions of the antennæ; also the cheeks. Scape and pedicel brownish, the former with more or less black dorsad; remainder of antenna black. Tegulæ and venation more or less lemon yellowish, the wings hyaline. Proximal joint of antennal club only about two-thirds the length of the distal funicle joint and about a fourth longer than the second club joint, the distal club joint very short, terminating in a short, spur-like seta. Scape long, reaching to the ocelli. Vertex yellowish along the eye margin, dorsal aspect.

(From 2 specimens, 2-3-inch objective, 1-inch optic, Bausch and Lomb.)

Male—Unknown.

Described from two female specimens received for study from Mr. C. French, Jr., Acting Government Entomologist, Melbourne, Victoria, labelled "Parasitic on homopterus gall on Eucalyptus, Cook's River, Sydney."

Habitat—Australia—Sydney, New South Wales.

Types—No. Hy 1197, Queensland Museum, Brisbane, the above specimens on tags (2 pins) plus a slide bearing a head.

Tribe OMPHALINI

Selitrichodes new genus

Female—Head rounded ovate, the antennæ inserted distinctly below the middle of the face, much below the ventral ends of the eyes, eight-jointed-scape, pedicel, two ring-joints, three funicle joints and a solid club; scape somewhat swollen, the three funicle

joints subquadrate and subequal, each about half the size of the pedicel, the club long-ovate, about equal to the scape, slightly longer than the funicle. Parapsidal furrows distinct, complete; scutellum with a narrow longitudinal groove on each side of the meson; abdomen equal to the length of the head and thorax combined, ovate, depressed, the ovipositor barely projecting beyond its tip. Wings ample, normally ciliate, the marginal fringes short, the marginal vein long, a fourth longer than the submarginal, the postmarginal a mere spur-like projection beyond the origin of the stigmal which is distinct, with a neck and uncus. Tarsi four-jointed, the tibial spurs single. Mandibles dentate.

Male—Not known.

Type—The following species.

1. *Selitrichodes fasciativentris* new species

Female—Length, 1.20 mm.

Lemon yellow, the abdomen dorsad with two transverse black stripes across it, both bands interrupted at the meson; a third stripe indicated proximad (across the base) by a black spot at the edge on each side; the two stripes are across the distal half of the proximal half of the abdomen. Legs, antennae and venation (more pallid) concolorous, the wings hyaline. A more or less obscure dusky spot near the tegula. Eyes and ocelli red.

(From four specimens, the same magnification).

Male—Not known.

Described from four females remounted on a slide in xylol-balsam from a card, received from the Acting Government Entomologist of Victoria and labelled "Chalcids parasitic on unknown galls on Eucalyptus, N. S. W."

Habitat—Australia, New South Wales.

Types—The above females on a single slide. No. Hy 1198, Queensland Museum, Brisbane.

PEDIOBINI

Metacrias new genus

Type—The following species.

1. *Metacrias australiansis* new species

Female—Length, 2.10 mm. Very dark metallic bluish, the head tinged with metallic green, especially on the face, the abdomen brilliant metallic bluish-green, shining. Wings hyaline, the venation dusky. Knees, tips of tibiae, distal third of posterior tibiae and the tarsi (excepting distal joint) white. Venter of thorax steel blue. Antennae concolorous with thorax but the ring-joint white. First funicle joint nearly as long as the club, the pedicel subequal in length to the distal funicle joint. The legs and propodeum may be as in the male. Segment VI of abdomen (dorsad) densely polygonally reticulated.

(From five specimens, the same magnifications).

Male—The same but the abdomen less pointed, with an oval, large whitish spot centrally, near base, the antennae metallic greenish, the abdomen with more green, the propodeum and the dark parts of the legs brilliant metallic cyanous; distal two funicle joints subequal, the first joint subequal to the club.

(From single specimen, similarly magnified.)

Described from one male and five female specimens, card-mounted, from the collections of the Queensland Museum, labelled "Bred out of fungus gall on wattle. Brisbane, H. Hacker, 14/7/11", 1 ♂, 2 ♀'s and the same plus "23/6/11", 3 ♀'s.

Habitat—Australia—Brisbane, Queensland.

Types—No. Ily 1199, Queensland Museum, Brisbane, the above specimens on two cards as indicated plus two slides of xylol-balsam, bearing female antenna and posterior legs (one slide) and male flagellum.

This genus differs from *Acrias* Walker in bearing nonfasciate wings and submoniliform antenna, the funicle joints more or less excised or constricted, and the club with one less joint. The following generic characters: Head large, wider than the thorax, the occipital margin carinate, the lateral ocelli not touch-

ing the eye margin, the vertex sloping cephalo-ventrad, the antennæ inserted distinctly below the middle of the face yet still slightly above an imaginary line drawn between the ventral ends of the eyes, the bulbs rather widely separated, the scrobicular cavity rather shallow, oblong, not reaching by some distance to the cephalic ocellus. Scape long, cylindrical and slender, much longer than the club; an obconic pedicel, one ring-joint, three funicle joints, the second bevelled off at apex, the third oval and subpetiolate at apex, a two-jointed, short, conic-ovate club, its smaller distal joint terminating in a nipple-like spur; its proximal joint forming more than half of the whole region. Club only slightly wider than the funicle. Posterior tibiæ armed with a single long acuminate spur; tarsi four-jointed. Marginal vein long and slender, only slightly shorter than the submarginal, the postmarginal and stigmal veins very short, the latter longer but with only a very short neck. Marginal fringes very short. Abdomen with a very short petiole, usually not visible, conic-ovate, depressed, the second segment a fourth of its length, the third a half shorter, the fourth transverse, the fifth only slightly shorter than the third, lightly reticulated cephalad, the sixth longer than the third, densely reticulated, hairy. Abdomen widest at apex of the second segment. Head and thorax opaque, rather densely reticulately punctate but the propodeum shining, brilliant and delicately reticulated, with a distinct, acute median carina, crossed by another short one at apex, the carina banded on each side by a deep longitudinal sulcus, whose lateral margins are carinæ and caudad join the ends of the short transverse carina; also the median carina at immediate base divides. Scutellum without longitudinal grooves, the parapsidal furrows obsolete, the mesothorax bearing very long, black, isolated setæ. Propodeal spiracle round.

The male is the same but the abdomen is distinctly petiolate, oval, less pointed and angular, the genitalia exerted; also the antennal club is longer and more slender, the funicle joints all subpetiolate, the pubescence longer and softer; the first funicle joint is longer, as long as the more slender club. Segments

III, IV and V of abdomen transverse. Antennæ the same except as noted.

This genus should be compared with *Eriglyptus* Crawford.

TETRASTICHINI

Genus *Tetrastichus* Haliday

1. *Tetrastichus victoriensis* new species

Female—Length, 1.35 mm. Shining black, the median grooved line of the scutum and the lateral margins of the scutellum straw yellow as are also the antennæ and venation, tarsi, knees and portions of the tibiæ; thorax with metallic purplish reflections. Wings very slightly embrowned throughout. Thorax extraordinarily finely longitudinally lined. A slight stain under apex of stigmal vein. Antennæ normal (ten-jointed, two ring-joints), the pedicel long obconic, the proximal and distal joints of the funicle subequal, joint II shorter than either and subquadrate.

(From six specimens, the same magnification).

Male—Not known.

Described from six female specimens mounted on a single card labelled "Chalcids parasitic on cynipid galls on *Acacia discolor*, Melbourne". Received from the Acting Government Entomologist of Victoria, C. French Jnr.

Habitat—Australia—Melbourne, Victoria.

Type—No. Hy 1200, Queensland Museum, Brisbane, the above specimens, plus a slide bearing a fore wing and head.

2. *Tetrastichus fasciatus* new species

Female—Length, 2 mm., more or less. General color lemon yellow, the abdomen darker; disk of the cephalic half of the scutum darker like the abdomen (except more or less along the meson), the center of the scutum with a fuscous round spot on each side of the meson, each spot at the apex of the darker portions on each side; propodeum cephalad, parapsidal furrows and suture between scutum and scutellum, black; also the margins of the scutellum more broadly laterad. Abdomen more or less distinctly banded transversely with black (very

distinctly so in balsam-mounted specimens, there being from six to seven bands). Legs, venation and antennæ yellow, the latter more or less dusky, the tarsi fuscous. Wings hyaline. Propodeum dark. Scutellum with four longitudinal grooved lines. Body finely, polygonally reticulated, the abdomen somewhat more coarsely so. Normal for the genus but the antenna apparently with three ring-joints, though in most cases but two are visible. Antennæ clavate, the funicle widening distad.

(From nine specimens, the same magnification).

Male—not known.

Described from nine females mounted together on a card in the Queensland Museum, labeled "Bred from gall No. 13".

Habitat—Australia—Queensland (?Brisbane).

Types—No. Hy 1201, Queensland Museum, Brisbane, six of the above specimens plus a slide bearing two others.

OMPHALINI

Rhincopeltella new genus

Female—Head normal, not thin as seen from above, the antennæ capitate, the club three-jointed, simple and ovate, much wider than the funicle, the latter three-jointed, short, clavate, the joints all wider than long and widening distad, the first transverse, the funicle shorter than the club; three subequal ring-joints, each of which is about half the length of the transverse proximal funicle joint. Scape cylindrical, moderate in length, the pedicel short, obconic but longer than any of the funicle joints, the club joints much longer than it. Marginal vein not half the length of the submarginal, nearly twice the length of the stigmal which is well-developed but not large, the postmarginal vein very short, not half the length of the stigmal. Marginal fringes short, the discal ciliation normal. Parapsidal furrows complete, the scutellum without longitudinal grooves, the tarsi four-jointed, the posterior tibiæ with one spur which is moderately long. Abdomen from dorsal aspect rounded oval, wider than the rest of the body, depressed and not as long as the thorax, the ovipositor not exerted. Propodeum very short,

especially at the meson, without noticeable carinæ, the spiracle small, oval. Metallic, sculptured, the pronotum short, the ocelli widely separated but close to the eye margins, the distal joint of cephalic tarsus enlarged, swollen. The antennæ inserted slightly below the middle of the face. Wings hyaline; second abdominal segment a third the length of the abdomen.

Male—(See beyond).

Type—The following species (*immaculatipennis*).

1. *Rhichnopeltella immaculatipennis* new species

Female—Length, 1.75 mm. Short and rather stout. Dark metallic anous green, the antennal club, the funicle (less so), the venation, the tarsi excepting the apex of the distal joint (the entire joint in caudal legs), the knees and tips of tibiæ (most all of cephalic tibiæ) brown, the venation and funicle darkest. Tegulæ concolorous. Whole body densely polygonally reticulated, the abdomen and propodeum, however, smoother. Lateral ocelli much farther from each other than each from the cephalic ocellus, than they are from the respective eye margins (farther from each other than each is from the cephalic ocellus). Distal club joint shortest of the club, the distal funicle joint longer than it. Stigmal vein shaped like a tadpole.

(From a single specimen, similarly magnified.)

Male—Unknown.

Described from a single female specimen from the collections of the Queensland Museum, mounted on a card labeled "Brisbane. H. Hacker. 4/7/11".

Habitat—Australia—Brisbane, Queensland.

Type—No. Hy 1202, Queensland Museum, Brisbane, the fore-noted specimen.

This genus is characterized by the peculiar antennæ—the three ring-joints, the enlarged club, the short clavate funicle, the simple cylindrical scape. A somewhat similar genus was thought to be represented by the following species which, however, proves to be congeneric.

I give its generic characters first and then the specific details.

Male—Somewhat like the female of the genus but differing

structurally as follows: The antennæ bear only two ring-joints, there being four transverse funicle joints and three club joints, the pedicel long and slenderly obovate; the postmarginal vein is two-thirds as long as the stigmal and the fore wings bear a substigmal, fuscous cloud. The body is brilliantly metallic. The marginal vein is longer, nearly half the length of the submarginal. Scutellum without grooved lines. Posterior tibiæ with a single long spur. Abdomen depressed, oval. Propodeal spiracle central, small, round-oval, the propodeum without a median carina nor spiracular sulci. Vertex large. Otherwise as in the type of the genus.

Female—The same but the abdomen is stout, short, compressed beneath, the ovipositor slightly exerted. The antenna has three rings and three funicle joints and the club is more compact.

2. *Rhincopeltella splendoriferella* new species

Female—Length, 2 mm. Brilliant metallic green, the abdomen dark cupreous, the legs concolorous with the abdomen and with their articulations whitish; coxæ metallic bluish; tibiæ lighter, the proximal half or more of the caudal tibiæ white. Flagellum brownish. Wings hyaline but the fore wings with a lightly fuscated rounded area under the apex of the stigmal vein and beneath most of the marginal vein; venation dusky brownish. Head and thorax rather finely, densely reticulated, the reticulation not coarse enough to form punctures but the sculpture of fine polygonal striation, on the abdomen and propodeum smoother.

(From a single specimen, similarly magnified).

Male—Length, 1.75 mm. The same but much more brassy and bronzy, the vertex metallic rosaceous, the same color on much of the thorax and head, the abdomen brighter green; legs with more brownish. Scape and pedicel brown, the flagellum dark brown.

(From twelve specimens, the same magnification).

Described at first from twelve males and one female mounted together on a card in the Queensland Museum, labeled "Bred from gall No. 5A. Brisbane, H. Hacker. 20/6/11".

Habitat—Australia—Brisbane, Queensland.

Types—No. Hy 1203, Queensland Museum, Brisbane, the foregoing specimens as noted, together with a slide bearing male antennæ, posterior legs and a fore wing in xylol-balsam (one slide); and a second slide bearing a female antenna.

Later, another card was found in the same collection bearing six females labeled "Brisbane, H. Hacker, 11/1/1911". This second species differs from *immaculatipennis* (females) in bearing a much longer antenna pedicel, a longer marginal vein, a fuscous cloud on the fore wing, a stouter abdomen and brighter green color.